

# Substances of concern in material loops: towards safe recycling

Breakout session 14-6-24

Introduction

Peter Loncke



WE MAKE  
TOMORROW  
BEAUTIFUL  
**OVAM**

# Overall objective



Decreasing the impact of chemical substances in waste and recycled products to a level that is doing no harm to health and environment

# What's already done about it?

## Broader European context



- ✓ EU Green Deal: multifaceted strategy to transform the EU in a modern economy where among others:
  - Resources are optimally used
    - Some key principles:
      - substances of concern are kept out of the cycle or have no significant impact on health and environment.
      - more careful use of chemicals in articles and materials
- ✓ Initiatives EU-level with links to substances of concern in waste:
  - Interface between waste and chemicals/products legislation
  - Chemicals strategy
  - Zero pollution action plan
  - Waste stream specific legislations: batteries, ELV, packaging, WEEE
  - POP-regulation
  - Sustainable Product Initiative with Ecodesign Regulation
  - Textile strategy
  - Regulation on microplastics
  - Regulation waste shipments + guidelines Basel Convention
  - ...

# Some remaining issues



## ✓ Complex situation:

- Products exit chemicals legislation when they become waste, but upon successful recycling, this legislation applies again
- SVHC, SoC vs hazardous waste:
  - SVHC: Reach-context but links with WFD
  - SoC: no general EU-definition but applied in specific legislation
  - Hazardous waste: LoW + WFD annex iii
- Waste and chemicals legislation have different objectives => friction
  - Chemicals Legislation
    - Applicable to substances, mixtures, and articles.
    - Registration, authorization, restriction & classification procedures + specific standards
    - Specific rules for hazardous substances such as SVHC (Substances of Very High Concern) and POPs (annex I).
  - Waste legislation
    - Applicable on waste as a whole, unlike chemicals legislation.
    - More “pragmatic” kind of risk management & possible other standards
    - POP Annex IV & V
    - Partial alignment with CLP (2014)
    - EoW criteria are not harmonized between EU MS

## ✓ Application of precautionary principle unclear

# Some practical challenges



- ✓ Difficulties in recycling
  - Problem of legacy substances and different lifetimes products
  - Heterogeneous materials + properties vary according to batch
  - Contamination of products after purchase
  - Waste processors should choose waste treatment methods compatible with the risks.
  - Waste classified under less restrictive hazard class (than CLP) and becomes EoW => reclassification under CLP. Risk for recycler.
- ✓ Classification hazardous waste:
  - Interplay systems of mirror codes vs HP criteria (Hazardous Properties) in waste classification.
  - Potential inconsistencies between waste and chemicals regulations.
- ✓ Information Transfer:
  - Limited information transfer about substances of concern to the waste phase.
  - No mechanism for communication to waste operators.
  - SCIP database as an attempt to gather information on SVHCs:
    - 14 million entries
    - Applicability for waste operator?
    - Could facilitate cleaner products but no obligation to reduce chemical risks
- ✓ Tracking substances:
  - Possibly feasible: specific legislation/guidelines for certain sectors
  - Taking into account the cost & the limitations of waste analyses
- ✓ Practical Implementation:
  - Pragmatic approach by waste processors due to lack of information.
  - Choice of LoW-codes (European Waste Catalogue) influenced by available info and practice within sectors.

# WFD: links with hazardous substances and SvHC - I



- ✓ Art. 4 – Waste hierarchy => also take into account global impact, principle of precaution
- ✓ Art. 6 – End-of-waste status:
  - Condition n°4 => use of substance with no overall adverse health or environmental effect
  - Possibility for setting of criteria on Union level, member state level or case-by-case
  - Check of meeting requirements of chemical and product legislation
- ✓ Art. 7 – List of waste:
  - Distinction non-hazardous vs. Hazardous (\*)
  - Possibility to reclassify by MS (on basis of Annex III)
- ✓ Art. 8 – Extended producer responsibility
  - 8a – general minimum requirements:
    - 1(b): Possibility to set other quantitative targets and/or qualitative objectives relevant for EPR
    - 4(b): Possibility to modulate obligations on recyclability and presence of hazardous substances
- ✓ Art. 9 – Prevention of waste
  - 1(i) MS measures to promote the reduction of the content of hazardous substances in materials/production + ensure filling in SCIP by supplier (art. 33(1) REACH)
  - 2. ECHA establishes database (SCIP)

# WFD: links with hazardous substances and SvHC - II



- ✓ Art. 10 – Recovery
  - MS takes necessary measures before or during recovery, to remove hazardous substances, mixtures and components from hazardous waste.
- ✓ Art. 11 – preparing for re-use and recycling
  - MS take measures to promote high quality recycling (separate collection of waste)
  - MS promote selective demolition to enable removal and safe handling hazardous substances
- ✓ Art. 13 – Protection of human health and the environment
- ✓ Art. 17 – Control of hazardous waste
  - Production, collection, transportation, storage & treatment => protection of health and environment.
  - Traceability to final destination
- ✓ Art. 18 – Ban on mixing hazardous waste
  - No mixing or dilution
  - Derogations
- ✓ Art. 19 – Labelling of hazardous waste
- ✓ Art. 20 – Hazardous waste households
- ✓ Art. 21 – Waste oils
- ✓ Art. 35 – Record keeping by producers, collectors, transporters, brokers of hazardous waste (registry)
- ✓ Annex III – Properties of waste which render it hazardous

# Discussion themes



## **Information bottlenecks**

**=> SCIP-information: making it more usable for waste-industry**

## **Legal framework discrepancies**

**=> same standards for virgin and recycled materials?**

## **Innovative solutions for waste management**

**=> is industry responsible for high quality recycling of waste**